

**III     Remarks**

**A.     As to the Rejection of Claims 46–68 Under 35 U.S.C. Section 112, Second Paragraph, as Being Indefinite**

The examiner has rejected claims 46–68 under 35 U.S.C. Section 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The examiner's reasons for the rejection are as follows:

The examiner requires clarification to the scope of the claimed invention. Applicant claims a composition comprising a mixture both free from polyphenols and permitting polyphenols. The examiner is unclear [as] to the presence or absence of polyphenols in the resultant product. Clarification of this matter is required.

(Section 2 of Action, Paragraph 2)

As noted by the examiner, Applicant's claimed antimicrobial composition comprises either mixture (A), which is free of polyphenols or mixture (B), which permits polyphenols. Because the composition could comprise mixture (A) or mixture (B) but not both, Applicant believes that the claims satisfy the requirements of 35 U.S.C. Section 112, second paragraph. Nevertheless, Applicant has amended claims 46, 64 and 67 (the independent claims in the application) to delete mixture (A). In addition, claims 46, 64 and 67 now provide that the antimicrobial composition consists essentially of a mixture "consisting essentially of at least one generally recognized as safe flavoring agent selected from polyphenol compounds. . . ."

Support for the referenced amendments (and the remaining amendments to the claims) is provided in the English language specification: at page 4, line 15, to page 5, line 3; at page 6, lines 18–24; at page 7, line 25 to page 8, line 2; and at page 10, line 19 to page 11, line 15.

**B. As to the Rejection of Claims 46–68 Under 35 U.S.C. Section 103(a) as Being Unpatentable over the Combined Disclosures of Friedman et al. and Kumani et al.**

The examiner has rejected claims 46–68 under 35 U.S.C. Section 103(a) as being unpatentable over the combined disclosures of United States Patent No. 4,446,161 to Friedman et al., referenced as “‘161,” and United States Patent No. 4,927,651 to Kumani et al., referenced as “‘651.” The examiner characterized the claims as drawn to an antimicrobial composition comprising at least two lipophilic GRAS flavor alcohols. The examiner’s reasons in support of the rejection are as follows:

The ‘161 patent teaches a preservative system comprising aromatic monohydric alcohols selected from the group consisting of benzyl alcohol, 2-phenyl ethanol, 1-phenyl-2-butanol and 3-phenyl-1-propanol (col. 3, lin. 51–59). The food composition is for human consumption (col. 4, lin. 1–10). The provision of an acid medium is accomplished by the addition of acetic, citric[,] malic and lactic acids (col. 7, lin. 1–7). The reference[,] however[,] is lacking a disclosure of the combination of monohydric alcohols with additional polyphenols. However, the ‘651 patent discloses [a] food preservative system comprising the addition of polyphenols (col. 1, lin. 38–43, claim 10). A skilled artisan would have been motivated to combine the polyphenols of ‘651 in order to impart antioxidant, sterilization and deodorizing properties onto the formulation of ‘161.

One of ordinary skill in the art would have been motivated to combine the teachings and suggestions of the art in order to impart further benefits on to the antibacterial preservative compound of ‘161. It is *prima facie* obvious to combine two compositions[,] each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. The idea of combining them flows logically from their having been individually taught in the prior art. See *In re Kerkhoven*, 626, F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). It would have been obvious to a skilled artisan to combine the teachings as such with an expected result of an antibacterial preservative with aromatic, deodorizing and sterilization properties.

(Section 6 of the Action, Paragraphs 1–2).

**United States Patent No. 4,446,161 to Friedman et al. (the '161 patent)**

The '161 patent discloses employing an aromatic alcohol as part of a preservative system effective to prevent microbiological spoilage of food compositions. The aromatic alcohol is selected from the group consisting of benzyl alcohol, 2-phenyl ethanol, sec-phenyl ethanol, 3-phenyl-1-propanol, 1-phenyl-1-propanol, 2-phenyl-1-propanol, 2-phenyl-2-propanol, 1-phenyl-2-butanol, 2-phenyl-1-butanol, 3-phenyl-1-butanol, 4-phenyl-2-butanol, d1-1-phenyl-2-pentanol 5-phenyl-1-pentanol, 4-phenyl-1-butanol, and combinations of these.

Accordingly, the compositions of the '161 patent are distinct from Applicant's claimed antimicrobial compositions, which consist essentially of polyphenols, such as tannic acid/tannins and lactic acid. Applicant's claimed compositions do not include the aromatic alcohols disclosed in the '161 patent.

**United States Patent No. 4,927,651 to Kumani et al. (the '651 patent)**

The '651 patent relates to a food-preserving method and composition. The food-preserving method according to the '651 patent comprises the steps of:

... adding to the food, plant extracts containing flavonoids and/or polyphenols; wrapping the food with a food wrapping material which is capable of radiating far infrared rays and absorbing ethylene gas; and keeping the wrapped food at a relatively low temperature. The food wrapping material comprises a thermoplastic with a far infrared radiating ceramic added. The far infrared radiating ceramic essentially contains silicon dioxide, aluminum oxide, magnesium oxide and silver oxide. The thermoplastic may be polyethylene, polypropylene or styrene. The far infrared radiating ceramic is pulverized, and the thermoplastic has such ceramic particles embedded and partly exposed. The ceramic particle is porous, and is about 0.5 microns across.

In use, the wrapping material radiates far infrared rays to the wrapped food to activate the enzyme in the food. Also, the wrapping material [absorbs] ethylene gas from the food. Thus, the wrapping material has a positive effect to keep the freshness of the food deeply inside.

Also, the wrapping material prevents the exposure of the food to the surrounding air, thereby preventing the degradation of polyphenols, which are applied to the surface of the food to function as an antioxidant. Accordingly, the discoloration of the wrapped food can be prevented for [a] long period.

The cooperative effect caused by the additive to the food and the wrapping material assures that the freshness of the food is preserved for [a] long period.

(Column 1, lines 40–68).

Applicant's claimed antimicrobial composition consists essentially of at least one polyphenol and lactic acid. The '651 patent does not disclose the use of lactic acid in its composition.

The compositions of the '161 patent cannot be combined with the compositions of the '651 patent to obtain Applicant's claimed compositions. There is no motivation in the '651 patent for one skilled in the art to eliminate the aromatic alcohols in the composition of the '161 patent, which is not present in Applicant's claimed compositions. Indeed, there is no motivation to combine the '161 patent with the composition of the '651 patent. The '161 patent discloses at column 1, lines 36-43:

The need to balance flavor and effectiveness is further complicated by the need to produce a microbiologically-stable food product at a cost which is competitive with other forms of the same or substitute products. The cost factor in the balance is constantly changing and presents the possibility that, at any given time, the preferred, preservative system might become uneconomical.

The express disclosure in the '161 patent about "the need to produce a microbiologically-stable food product **at a cost which is competitive with other forms of the same or substitute products**" would discourage persons skilled in the art from trying to combine the process and composition of the '651 patent, which requires special processing steps, special plastic /ceramic food wrapping materials and the application of radiation with the composition of the '161 patent. Accordingly, a rejection of claims 46, 48–53 and 55–70 under 35 U.S.C. Section 103(a) over the '161 patent, in view of the '651 patent, is untenable and should not be made.

**C. As to the Elections/Restrictions Required Under 35 U.S.C. Section 121**

Applicant is required under 35 U.S.C. Section 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Claim 46 was identified as generic.

The examiner advised Applicant that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election. (Section 7, Paragraph 3)

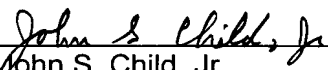
Applicant has amended claim 46 to recite that the "at least one hydrophilic non-alcoholic generally recognized as safe flavoring agent which comprises an organic acid containing from 1 to 15 carbon atoms" is ***lactic acid***. In terms of the election of species, claim 46 is believed to be similar to independent claims 64 and 67, which were not subject to this requirement. Accordingly, claim 46 now complies with the requirement under 35 U.S.C. Section 121.

**IV      Conclusion**

It is believed that the above Amendment and Remarks constitute a complete Response under 37 C.F.R. § 1.111 and that all grounds for objection stated in the Action have been adequately rebutted or overcome. A Notice of Allowance in the next Action is therefore requested. The examiner is requested to telephone the undersigned counsel if any matter that can be expected to be resolved in a telephone interview is believed to impede the allowance of the pending claims of Application Serial No. 09/743,883.

Respectfully submitted,

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Enclosures:      Certificate of Mailing Under 37 C.F.R. § 1.8(a)  
                         Petition for Extension of Time  
                         Authorization To Charge Deposit Account (original + 1 copy)  
                         Request for Continued Examination  
                         Amendment and Response To United States Patent and Trademark Office  
                         Examiner's Action Under 37 C.F.R. § 1.111  
                         Return postcard

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